

# ARCHOS

Archos Internet Tablets: towards an open framework, the android revolution!

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ARCHOS | 5 internet tablet

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# Positioning

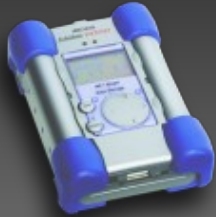
ENTERTAINMENT



CONNECTIVITY

MOBILITY

2000 - Jukebox 6000



2001 - JB Recorder



2002 - AV 120



2003 - AV 300



2004 - AV 400



2005 - PMA 400



2006 - ARCHOS 604



2007 - ARCHOS 605



2008 - ARCHOS 5



# 7th generation of Archos products is Android-based

- **New product: ARCHOS | *S internet tablet***
  - September 2009: Archos releases its new Wi-Fi connected Internet Tablet.
- **Change of software platform: the Android way**
  - 2009: transition from in house Linux from scratch closed platform (Gen4-6) to open Android framework (SDK available and Apache software license).
- **Goal:**
  - combine the best of Archos multimedia knowhow (HD Video, Music, Photo, TV recording) together with Google's Android operating system and open application framework to cover mobility and connectivity

*Uncompromised design in the palm of your hand...*



10  
mm

Thin

Large screen

180g

Light

# Opening up our devices

- Transition to Linux: 2005
- PMA 400:
  - Qtopia-based environment
  - Most Zaurus packages working
  - SDK available
  - Adopted by Linux enthusiasts but not general public
- GPL sources available for all devices
- Android: 2009 (A5IT)
- Developer edition:
  - A5IMT: 2008
  - A5IT: 2009

# Motivation for opening

- Strong demand from users
- Open for external innovation and contribution
- Provide a full usable product instead of a board, thus complementing BeagleBoard-type offerings
- Provide external device support beyond its evolution path

# Motivation for dual OS

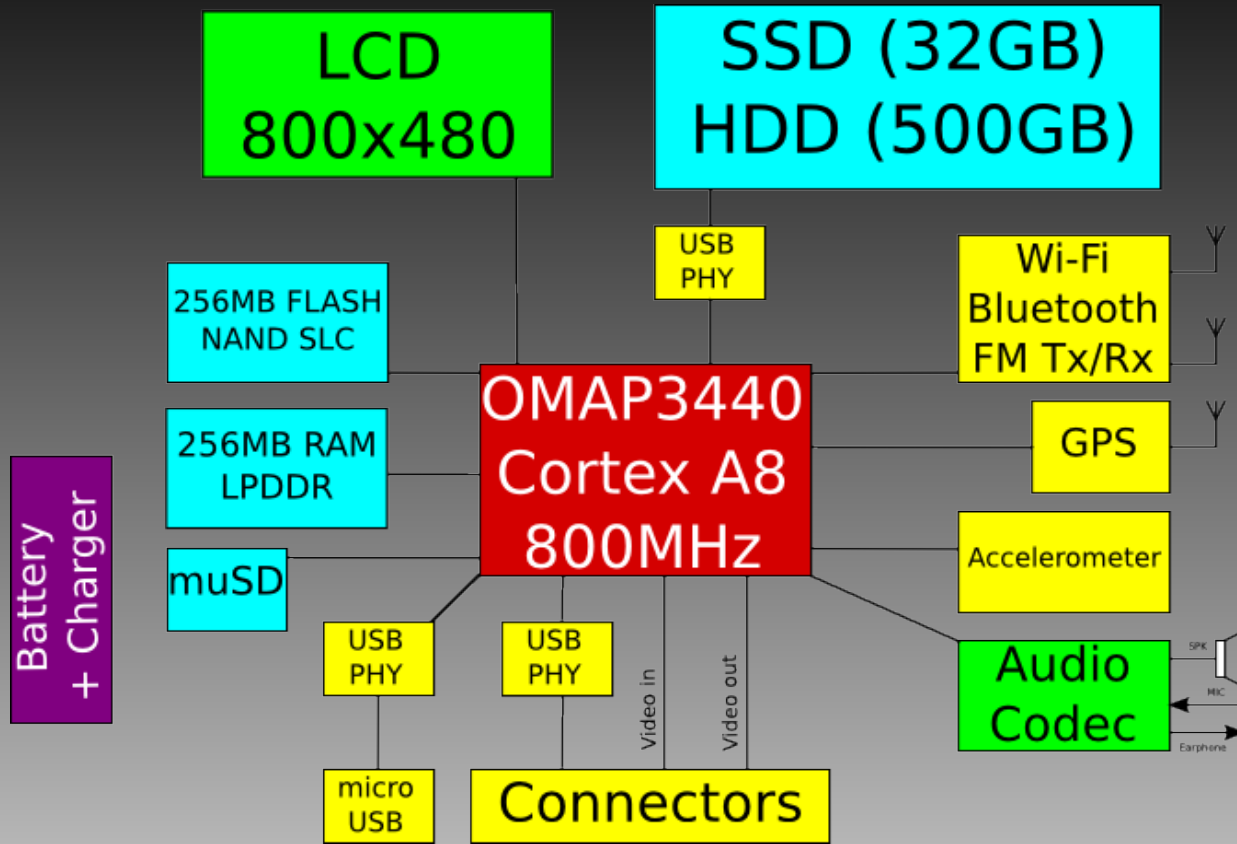
- **Limited development possibilities with Android:**
  - Java is mandatory
  - Link with native libraries through JNI
  - Strange libc (bionic)
  - No standard framebuffer/X/console...
- **Android is not a standard Linux!**
- **Devices still not open enough for hacking:**
  - Can't flash own firmwares (signature)



# What we provide

- Developer's Edition firmware for Archos 5 Internet Tablet (and older Archos 5 Internet Media Tablet)
  - Ångström/OpenEmbedded-based
  - User can change the whole rootfs image
  - DRM keys are lost forever
- Philosophy: seed, let the community do it

# A5 IT hardware architecture



Wi-Fi and Bluetooth connectivity, FM transmit and receive capability, a GPS, accelerometer

# Specifications

- TI OMAP 3440 (ARM Cortex A8) clocked at 800MHz
- PowerVR SGX 530 GPU at 100MHz – OpenGL ES 2.0
- IVA 2+ (C64x) DSP at 430 MHz
- Portable, mobile device
- Integrated touchscreen (4.8", 800×480)
- Battery powered
- Video out, audio in and USB host on expansion cards
- MicroSD card slot (on flash-based devices)
- GPS, WiFi, BlueTooth, FM Tx/Rx, accelerometer...

# Specifications (2)

- **Multiple-boot**
  - Target as many environments as your storage can handle (including Android)



# It is working!

- Strong acceptance
- Real contributions emerge
- New community (OpenAOS):  
<http://www.openaos.org>
- OpenEmbedded build target
- Community provided:
  - Android 2.0
  - Windows 95

- **Powerful and well-equipped multiple usage device:**
  - Hack it at home
  - When you're in the mood, hack on the go
  - When you're not, just use it as a standard tablet
- **Pretty design (WAF ++)**
  - "Look, I've bought you a tablet for your birthday!"
- **Surprise us!**